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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/551,951	10/06/2005	Owain Llyrr Parri	MERCK-3078	6831
23599 7590 12/10/2009 MILLEN, WHITE, ZELANO & BRANIGAN, P.C. 2200 CLARENDON BLVD. SUITE 1400 ARLINGTON, VA 22201				
EXAMINER BRIGGS, NATHANIEL R				
ART UNIT		PAPER NUMBER		
2871				
NOTIFICATION DATE		DELIVERY MODE		
12/10/2009		ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

docketing@mwzb.com

Office Action Summary

Application No.

10/551,951

Applicant(s)

PARRI ET AL.

Examiner

NATHANAEAL R. BRIGGS

Art Unit

2871

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 August 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,4-6,10,12-18,20-23 and 25-35 is/are pending in the application.
- 4a) Of the above claim(s) 21-23 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4-6,10,12-18,20 and 25-35 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1, 2, 4-6, 10, 12-18, 20, and 25-35 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. **Claims 1, 2, 4-6, 10, 12-18, 20, and 25-35 are rejected under 35 U.S.C. 102(e) as being anticipated by Lyu et al. (US 6,646,701).**

4. Regarding claim 1, Lyu discloses an IPS LCD (see figure 12B, for instance), said display comprising a switchable liquid crystal cell (50) sandwiched between two polarizers (10, 11), said liquid crystal cell comprising a layer of a liquid crystal medium between two plane parallel substrates at least one of which is transparent to incident light, wherein the liquid crystal molecules of said medium are reoriented by application of an electric field that has a major component substantially parallel to the substrate (column 11, lines 42-45), at least one first retardation film (20) comprising optically uniaxial positive calamitic liquid crystal material and having an optical axis substantially parallel to the film plane wherein said at least one first retardation film is designated an

+A plate, and only one second retardation film (30) comprising optically uniaxial positive calamitic liquid crystal material and having an optical axis substantially perpendicular to the film plane, wherein said second retardation film is designated the +C plate, wherein the at least one +A plate and the only one +C plate are situated on the same side of said switchable liquid crystal cell (see figure 12B), and said only one +C plate is closer than said at least one +A plate to the polarizer that is on the same side of said switchable liquid crystal cell as said at least one +A plate and said only one +C plate, and the optical axis of said at least one +A plate is parallel to the stretch axis of the polarizer (see figure 12B) that is situated on the same side of said switchable liquid crystal cell as said at least one +A plate and said only one +C plate. Claim 1 is therefore unpatentable.

5. Regarding claim 2, Lyu discloses a liquid crystal display according to claim 1 (see figure 12B, for instance), wherein said display comprises only one +A plate and only one +C plate (figure 12B). Claim 2 is therefore unpatentable.

6. Regarding claim 4, Lyu discloses a liquid crystal display according to claim 1 (see figure 12B, for instance), wherein the at least one +A plate and/or the only one +C plate comprise polymerized or crosslinked calamitic liquid crystal material. Claim 4 is therefore unpatentable.

7. Regarding claim 5, Lyu discloses a liquid crystal display according to claim 1 (see figure 12B, for instance), wherein the at least one +A plate comprises polymerized or crosslinked calamitic liquid crystal K-G material with planar orientation. Claim 5 is therefore unpatentable.

8. Regarding claim 6, Lyu discloses a liquid crystal display according to claim 1 (see figure 12B, for instance), wherein the only one +C plate comprises polymerized or crosslinked calamitic LC material with homeotropic orientation. Claim 6 is therefore unpatentable.
9. Regarding claim 10, Lyu discloses an LCD according to claim 1 (see figure 12B, for instance), wherein the at least one +A plate and/or the only one +C plate are situated between the substrates of the liquid crystal cell. Claim 10 is therefore unpatentable.
10. Regarding claim 12, Lyu discloses an LCD according to claim 1 (see figure 12B, for instance), wherein the at least one +A plate and the only one +C plate are situated between the liquid crystal cell and the polarizer. Claim 12 is therefore unpatentable.
11. Regarding claim 13, Lyu discloses an LCD according to claim 1 (see figure 12B, for instance), wherein the thickness of the at least one +A plate is from 0.6 to 1.6 μm (column 9, 29-34). Claim 13 is therefore unpatentable.
12. Regarding claim 14, Lyu discloses an LCD according to claim 1 (see Allen figures 4-5, for instance), wherein the thickness of the +C plate is from 0.4 to 1.0 μm (column 9, 29-34). Claim 14 is therefore unpatentable.
13. Regarding claim 15, Lyu discloses an LCD according to claim 1 (see figure 12B, for instance), wherein the optical retardation $d_a \Delta n_a$ of the at least one +A plate is from 50 to 200 nm (see claim 2). Claim 15 is therefore unpatentable.

14. Regarding claim 16, Lyu discloses an LCD according to claim 1 (see figure 12B, for instance), wherein the optical retardation $d\Delta n$ of the only +C plate is from 30 to 150 nm (see claim 3, and column 9, 29-34). Claim 16 is therefore unpatentable.

15. Regarding claim 17, Lyu discloses an LCD according to claim 1 (see figure 12B, for instance), wherein the optical retardation $d_a\Delta n_a$ of the at least one +A plate is from 69 to 184 nm (see claim 3). Claim 17 is therefore unpatentable.

16. Regarding claim 18, Lyu discloses an LCD according to claim 1 (see figure 12B, for instance), wherein the optical retardation $d\Delta n$ of the +C plate is from 46 to 115 nm (column 9, 29-34). Claim 18 is therefore unpatentable.

17. Regarding claim 20, Lyu discloses an LCD according to claim 1 (see figure 12B, for instance), wherein the positions of the individual components are selected from the following configuration:

P(90)	C	A(90)	LC(0)	P(0)
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18. Claim 20 is therefore unpatentable.

19. Regarding claim 25, Lyu discloses an LCD according to claim 4 (see figure 12B, for instance), wherein the at least one +A plate comprises polymerized liquid crystal material obtained from polymerizable LC material comprising: 5 - 70 % by weight of one or more directive achiral mesogenic compounds, 30 - 95 % by weight of one or more monoreactive achiral mesogenic compounds, and 0 to 10 % by weight of one or more photoinitiators. Claim 25 is therefore unpatentable.

20. Regarding claim 26, Lyu discloses a liquid crystal display according to claim 4 (see figure 12B, for instance), wherein the only one +C plate comprises polymerized

liquid crystal material obtained from polymerizable LC material comprising: 5 - 70 % by weight of one or more direactive achiral mesogenic compounds, 30 - 95 % by weight of one or more monoreactive achiral mesogenic compounds, and 0 to 10 % by weight of one or more photoinitiators. Claim 26 is therefore unpatentable.

21. Regarding claim 27, Lyu discloses a liquid crystal display according to claim 25 (see figure 12B, for instance), wherein the only one +C plate comprises polymerized liquid crystal material obtained from polymerizable LC material comprising: 5 - 70 % by weight of one or more direactive achiral mesogenic compounds, 30 - 95 % by weight of one or more monoreactive achiral mesogenic compounds, and 0 to 10 % by weight of one or more photoinitiators. Claim 27 is therefore unpatentable.

22. Regarding claim 28, Lyu discloses an LCD according to claim 1 (see figure 12B, for instance), wherein the positions of the individual components are selected from the following configuration:

S	P(90)	C	S	A(90)	LC(0)	S	P(0)	S
S	P(90)	S	LC(0)	A(0)	S	C	P(0)	S

23. wherein S denotes a transparent substrate. Claim 28 is therefore unpatentable.

24. Regarding claim 29, Lyu discloses an LCD according to claim 28 (see figure 12B, for instance), wherein the positions of the individual components are selected from the following configuration:

S	P(90)	C	S	A(90)	LC(0)	S	P(0)	S
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25. wherein S denotes a transparent substrate. Claim 29 is therefore unpatentable.

26. Regarding claim 30, Lyu discloses an LCD according to claim 28 (see figure 12B, for instance), wherein the positions of the individual components are selected from the following configuration:

S	P(90)	S	LC(0)	A(0)	S	C	P(0)	S
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27. wherein S denotes a transparent substrate. Claim 30 is therefore unpatentable.

28. Regarding claim 31, Lyu discloses the LCD according to claim 29 (see figure 12B, for instance), wherein S in each case is independently a stretched plastic film selected from TAC, DAC, and PVA films. Claim 31 is therefore unpatentable.

29. Regarding claim 32, Lyu discloses the LCD according to claim 30 (see figure 12B, for instance), wherein S in each case is independently a stretched plastic film selected from TAC, DAC, and PVA films. Claim 32 is therefore unpatentable.

30. Regarding claim 33, Lyu discloses the LCD according to claim 5 (see figure 12B, for instance), wherein only one +C plate comprises polymerized or crosslinked calamitic LC material with homeotropic orientation. Claim 33 is therefore unpatentable.

31. Regarding claim 34, Lyu discloses the LCD according to claim 1 (see figure 12B, for instance), wherein only one +A plate is situated between the substrates of the LC cell. Claim 34 is therefore unpatentable.

32. Regarding claim 35, Lyu discloses the LCD according to claim 1 (see figure 12B, for instance), the thickness of said at least one +A plate is from 0.6 to 1.6 μm ; the thickness of said only one +C plate is from 0.4 to 1.0 μm ; the optical retardation $d_A \cdot \Delta n_a$ of said at least one +A plate is from 50 to 200 nm; and the optical retardation $d \cdot \Delta n$ of said only one +C plate is from 30 to 150 nm. Claim 35 is therefore unpatentable.

Conclusion

33. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **NATHANAEL R. BRIGGS** whose telephone number is (571)272-8992. The examiner can normally be reached on 9 AM - 5:30 PM Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Nelms can be reached on (571) 272-1787. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Nathanael Briggs
12/3/2009

/David Nelms/
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